

Category 5 (continued)	Category 6
Alachlor	Tributyltin
Simazine	Triphenyltin
Ethylparathion	
Carbaryl	Category 7
Malathion	Estradiol
Methomyl	
Nitrophen	Not classified into the categories
Trifluralin	
Benomyl	Dioxin
Manzeb (mancozeb)	Environmental hormones excluded from the categories
Maneb	
Metiram	
Metribuzin	Mirex
Cypermethrin	Toxaphene
Esfenvalerate	Aldicarb
Fenvalerate	Kepone (chlordecone)
Permethrin	
Vinclozolin	
Zineb	
Ziram	

The endocrine disruptors are not limited to those listed above. For example, diethylstilbestrol (DES) which is known to cause vaginal cancer in humans, and bisphenol-A for which an estrogen (female) activity and toxicity have been observed are considered to have endocrine disrupting activities.

These substances are known to have the following primary activities: 1) direct activities on hormone receptors (e.g., synthetic hormone formulations, DDT, phthalate esters, etc.); 2) activities through other receptors (e.g., dioxins, etc.); 3) activities of inhibiting metabolism (e.g., steroid metabolic inhibitors, inhibitors of aromatase or 5 α -reductase, etc.); and 4) activities through other systems (e.g., substances that influence nervous system or immune system). Thus, their modes of actions are diverse [Kagaku (Chemistry), 53(7):12-15 (1998)].

As used herein, a gene that is influenced by an endocrine disruptor is defined as a gene of which the expression is promoted or suppressed by the above-listed endocrine disruptor as compared with a control. The number of the gene(s) may be one, or two or more. Thus, a gene for or related to an agent of which the expression is directly and/or indirectly influenced by an endocrine disruptor may be selected as the gene to be immobilized onto the DNA array of the present invention. Genes of which the expression is promoted and genes of which the expression is suppressed can be preferably used. Examples of preferable candidates for such genes (i.e., genes that are potentially influenced by endocrine disruptors) include, but are not limited to, those shown in Table 2 which are

classified as follows: (1) a gene for a nuclear receptor or a gene related to nuclear receptor transcriptional coupling (nuclear receptor or nuclear receptor transcriptional coupling); (2) a gene related to kinase-type signal transduction (kinase-type signal transduction); (3) a gene related to gonad differentiation (gonad differentiation); (4) a gene for or related to a receptor-type kinase (receptor-type kinase); (5) a gene for or related to an intermediate filament marker (intermediate filament markers); (6) a gene related to cell cycle or growth regulation (cell cycle & growth regulators); (7) an oncogene, a gene related to an oncogene or a gene related to tumor suppression (oncogenes & tumor suppressors); (8) a gene related to apoptosis (apoptosis); (9) a gene related to damage response, repair or recombination of DNA (DNA damage response, repair & recombination); (10) a gene for or related to a receptor (receptors); (11) a gene related to cell death or differentiation regulation (cell fate & development regulators); (12) a gene related to adhesion, motility or invasion of cell (cell adhesion, motility & invasion); (13) a gene related to angiogenesis promotion (angiogenesis regulators); (14) a gene related to cellular invasion (invasion regulators); (15) a gene related to cell-cell interaction (cell-cell interactions); (16) a gene for or related to a Rho family, GTPase or a regulator